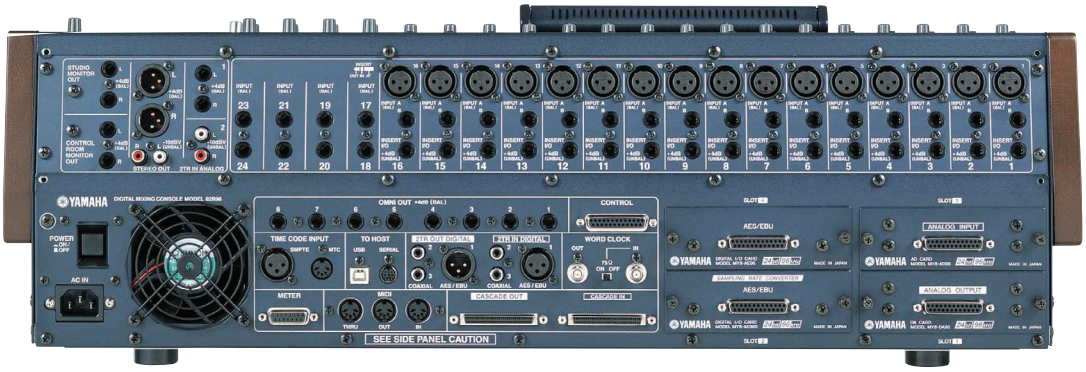
02R96VCM

Digital Mixing Console

02R96VCM

*Peak Meter Bridge MB02R96& Wood Side Pad SP02R96 are options.



Rear Panel

*Mini-YGDAI card MY8-AE96 & MY8-AE96S, MY8-AD96, MY8-DA96 are options.

A comprehensive update of the legendary 02R.

- Precise 24-bit/96-kHz audio and high-performance head amps.
- Generous mixing capacity with up to 56 simultaneous inputs and 18 mix buses (8 group buses, 8 auxiliary buses and a stereo bus) in the same compact desk-top dimensions as the original 02R.
- Powerful channel functions with flexible control and digital patching.
- Four advanced multi-effect processors include surround effects.
- Scene memory and auto-mix functions for efficient workflow.
- Versatile channel pairing and grouping functions enhance mixing efficiency.
- Comprehensive interface with 25 touch-sensitive 100-mm motor faders.
- 16 microphone/line inputs with balanced XLR/TRS jacks that feature top-performance head amplifiers for outstanding audio quality.
- Four mini-YGDAI expansion slots for easy I/O expansion in a variety of formats.
- Compatible with both Windows or Macintosh versions of Studio Manager version2 Software, allowing your PC and Console to work together seamlessly.
- A new dimension of production power with the addition of Yamaha VCM effects and processing.
- Included in the THX pm3™ Studio Certification Program Approved Equipment List.

OPTIONS

MB02R96
Peak Meter Bridge

SP02R96
Side Pad

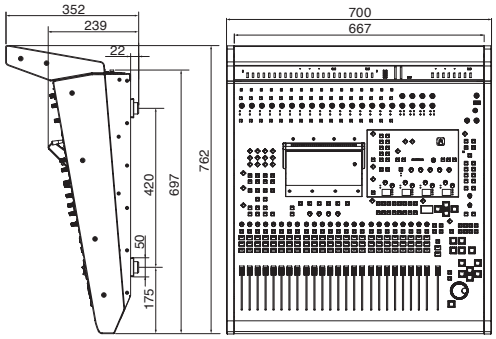
GENERAL SPECIFICATIONS

Internal processing	32bit (Accumulator=58bit)
Number of scene memories	99
Sampling frequency rate	Internal : 44.1kHz, 48kHz, 88.2kHz, 96kHz External: Normal rate 44.1kHz (-10%) to 48kHz (+6%) Double rate 88.2kHz (-10%) to 96kHz (+6%)
Signal Delay	Less than 2.0 ms CH INPUT to STEREO OUT (@fs=48 kHz) Less than 1.1 ms CH INPUT to STEREO OUT (@fs=96 kHz)
Total harmonic distortion*1 CH INPUT to STEREO OUT Input Gain=Min.	Less than 0.05%, 20Hz to 20kHz @+14dBu into 600Ω Less than 0.01%, 1kHz @+18dBu into 600Ω (@fs=48kHz) Less than 0.05%, 20Hz to 40kHz @+14dBu into 600Ω Less than 0.01%, 1kHz @+18dBu into 600Ω (@fs=96kHz)
Frequency response CH INPUT to STEREO OUT	20Hz - 20kHz, 0.5, -1.5dB, @+4dBu into 600Ω (@fs=48kHz) 20Hz - 40kHz, 0.5, -1.5dB, @+4dBu into 600Ω (@fs=96kHz)
Dynamic range (maximum level to noise level)	110dB typ, DA Converter (STEREO OUT) 105dB typ, AD+DA (to STEREO OUT)
Hum & noise level*2 (20Hz to 20kHz) Rs=150ohms Input Gain=Max Input Pad=0dB Input Sensitivity=-60dB	-128dBu Equivalent Input Noise -92dBu residual output noise. STEREO OUT(STEREO OUT off) -92dBu(96dB S/N) STEREO OUT(STEREO fader at nominal level and all CH INPUT faders at minimum level) -64dBu(68dB S/N) STEREO OUT(STEREO fader at nominal level and one CH INPUT fader at nominal level)
Crosstalk (@1kHz) Input Gain=Min.	-80dB adjacent input channels (CH1-24) -80dB input to output
Phantom Power	+48V
Power requirements	Japan: AC100V 50/60Hz North America: AC120V, 60Hz Other Areas: AC220-240V, 50/60Hz
Power consumption	200W
Dimensions (W x H x D)	02R96: 667 x 239 x 697mm (26.3" x 9.4" x 27.4") With MB and SP: 700 x 352 x 762mm (27.6" x 13.9" x 30.0")
Weight	34.0kg (75lbs) With MB&SP:39.4kg (86.9lbs)

*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.
*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

DIMENSIONS

unit : mm



ANALOG INPUT SPECIFICATIONS

Input terminal			Actual source impedance	For use with nominal	Input level			Connector
	PAD	GAIN			Sensitivity	Nominal	Max. before clip	
CH INPUT A/B 1-16	0	-60dB	3kΩ	50-600Ω Mics & 600Ω Lines	-70dBu	-60dBu	-46dBu	A:XLR3-31 type* B:TRS Phone Jack*
		-16dB			-26dBu	-16dBu	-2dBu	
	26				0dBu	+10dBu	+24dBu	
CH INPUT 17-24		+34dB	4kΩ	600Ω Lines	-44dBu	-34dBu	-20dBu	TRS Phone Jack*
		+10dB			0dBu	+10dBu	+24dBu	
INSERT IN 1-16			10kΩ	600Ω Lines	-6dBu	+4dBu	+18dBu	TRS Phone Jack**
2TR IN ANALOG 1[L,R]			10kΩ	600Ω Lines	+4dBu	+4dBu	+18dBu*	TRS Phone Jack*
2TR IN ANALOG 2[L,R]			10kΩ	600Ω Lines	-10dBu	-10dBV	+4dBV	RCA Pin Jack**

ANALOG OUTPUT SPECIFICATIONS

Output terminal	Actual source impedance	For use with nominal	GAIN SW	Output terminals		Connector
				Nominal	Max. before clip	
STEREO OUT[L,R]	600Ω	10kΩ Lines	—	-10dBV	+4dBV	RCA Pin Jack**
	75Ω	600Ω Lines	—	+4dBu	+18dBu*	XLR3-32 type*
STUDIO MONITOR OUT[L,R]	75Ω	10kΩ Lines	—	+4dBu	+18dBu*	TRS Phone Jack*
C-R MONITOR OUT[L,R]	75Ω	600Ω Lines	—	+4dBu	+18dBu*	TRS Phone Jack*
OMNI OUT 1-8	75Ω	10kΩ Lines	+18dB (default)	+4dBu	+18dBu	TRS Phone Jack*
			+4dB	-10dBu	+4dBu	
INSERT OUT 1-16	600Ω	10kΩ Lines	—	+4dBu	+18dBu	TRS Phone Jack**
PHONES	100Ω	8Ω Phones	—	4mW	25mW	ST Phone Jack**
		40Ω Phones	—	12mW	75mW	

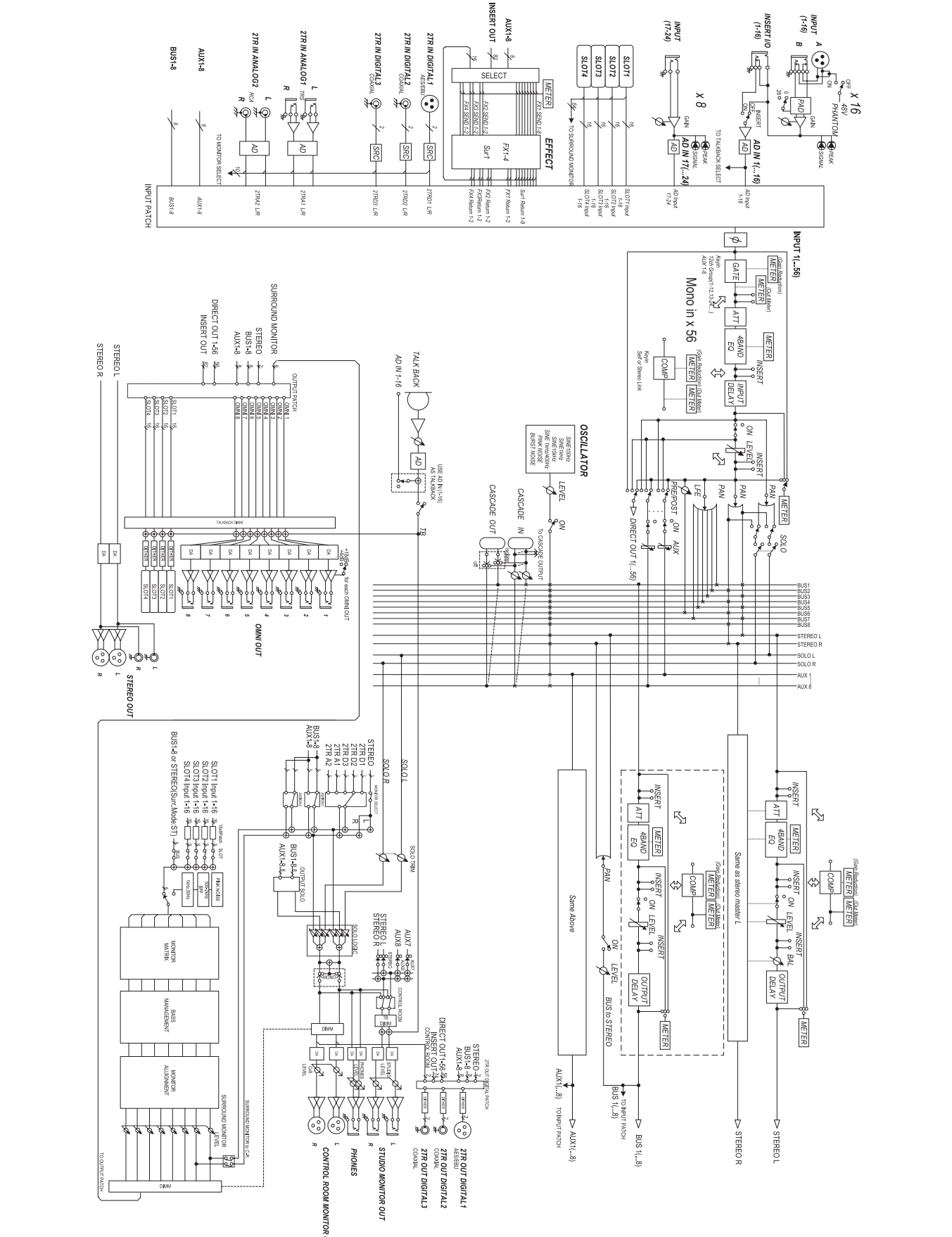
DIGITAL INPUT SPECIFICATIONS

Terminal		Format	Data length	Level	Connector
2TR IN DIGITAL	1	AES/EBU	24bit	RS422	XLR3-31 type
	2	IEC-60958	24bit	0.5Vpp/75Ω	RCA Pin Jack
	3	IEC-60958	24bit	0.5Vpp/75Ω	RCA Pin Jack
CASCADE IN		—	—	RS422	D-sub Half Pitch Connector 68Pin (Female)

DIGITAL OUTPUT SPECIFICATIONS

Terminal		Format	Data length	Level	Connector
2TR OUT DIGITAL	1	AES/EBU (Professional use)	24bit	RS422	XLR3-32 type
	2	IEC-60958 (Consumer Use)	24bit	0.5Vpp/75Ω	RCA Pin Jack
	3	IEC-60958 (Consumer Use)	24bit	0.5Vpp/75Ω	RCA Pin Jack
CASCADE OUT		—	—	RS422	D-sub Half Pitch Connector 68Pin (Female)

CONTROL I/O SPECIFICATIONS

Terminal		Format	Level	Connector
TO HOST	Serial	—	RS422	Mini DIN Connector 8P
	USB	USB1.1	0 V~3.3 V	B Type USB Connector
MIDI	IN	MIDI	—	DIN Connector 5P
	OUT	MIDI	—	DIN Connector 5P
	THRU	MIDI	—	DIN Connector 5P
TIME CODE IN	MTC	MIDI	—	DIN Connector 5P
	SMPTE	SMPTE	Nominal –10dB/10kΩ	XLR3-31 Type*
WORD CLOCK	IN	—	TTL/75Ω (ON/OFF)	BNC Connector
	OUT	—	TTL/75Ω	BNC Connector
CONTROL		—	Open collector	D-Sub Connector 25P (Female)
METER		—	RS422	D-SUB Connector 15P (Female)

BLOCK DIAGRAM